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PATENT APPLICATION

ATTORNEY DOCKET NO. 10004955-1



IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Michael J. Chaloner et al.

Confirmation No.: 6430

Application No.: 09/912,211

Examiner: V. U. Brown

Filing Date: July 24, 2001

Group Art Unit: 2635

Title: SYSTEM AND METHOD FOR IMPROVED OBJECT IDENTIFICATION

Mail Stop Appeal Brief-Patents  
Commissioner For Patents  
PO Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 09-28-2005.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

( ) (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

( ) one month	\$120.00
( ) two months	\$450.00
( ) three months	\$1020.00
( ) four months	\$1590.00

( ) The extension fee has already been filled in this application.

(X) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2025** the sum of 0. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

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Date of Deposit: November 17, 2005

Typed Name: Donna Forbit

Signature: Donna Forbit

Respectfully submitted,

Michael J. Chaloner et al.

By

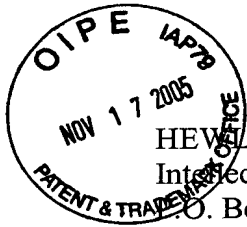
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HEWLETT-PACKARD COMPANY  
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Fort Collins, Colorado 80527-2400

Docket No.: 10004955-1  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Michael J. Chaloner et al.

Confirmation No.: 6430

Application No.: 09/912,211

Art Unit: 2635

Filed: July 24, 2001

Examiner: V. U. Brown

For: SYSTEM AND METHOD FOR IMPROVED  
OBJECT IDENTIFICATION

**STATEMENT CONCERNING FEES**

MS Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Prosecution was reopened in this matter prior to a decision on the merits by the Board of Patent Appeals and Interferences. Therefore, the fees paid for the Notice of Appeal (filed 2/10/05) and first Appeal Brief (filed 4/8/05) should be applied to this appeal. Accordingly, no fee is included with this Appeal Brief which accompanies this Statement.

Applicant believes no fee is due with this response. However, if a fee is due, please charge Deposit Account No. 08-2025, under Order No. 10004955-1 from which the undersigned is authorized to draw.

Application No.: 09/912,211

Docket No.: 10004955-1

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Respectfully submitted,

By: 

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Michael J. Chaloner et al.

Application No.: 09/912,211

Confirmation No.: 6430

Filed: July 24, 2001

Art Unit: 2635

For: SYSTEM AND METHOD FOR IMPROVED  
OBJECT IDENTIFICATION

Examiner: V. U. Brown

**SECOND APPEAL BRIEF**

MS Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

As required under § 41.37(a), this supplemental brief is filed within two months of the Notice of Appeal filed in this case on September 28, 2005, and is in furtherance of said Notice of Appeal.

The fees required under § 41.20(b)(2) are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

- |      |   |
|------|---|
| I.   | Real Party In Interest                        |
| II.  | Related Appeals and Interferences             |
| III. | Status of Claims                              |
| IV.  | Status of Amendments                          |
| V.   | Summary of Claimed Subject Matter             |
| VI.  | Grounds of Rejection to be Reviewed on Appeal |

VII.	Argument
VIII.	Claims
IX.	Evidence
X.	Related Proceedings
Appendix A	Claims
Appendix B	Evidence
Appendix C	Related Proceedings

**I. REAL PARTY IN INTEREST**

The real party in interest for this appeal is:

Hewlett-Packard Development Company, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas.

**II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS**

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

**III. STATUS OF CLAIMS**

**A. Total Number of Claims in Application**

There are 24 claims pending in the application.

**B. Current Status of Claims**

1. Claims canceled: 1-22, 25, 38-41, 43
2. Claims withdrawn from consideration but not canceled: None
3. Claims pending: 23-24, 26-37, 42, 44-52
4. Claims allowed: None
5. Claims rejected: 23-24, 26-37, 42, 44-52

**C. Claims On Appeal**

1. The claims on appeal are claims 23-24, 26-37, 42, 44-52.

**IV. STATUS OF AMENDMENTS**

Appellant did not file an Amendment After Final Rejection. Appellant last amended the claims in a Response filed August 9, 2004 in response to the non-final Office Action mailed May 10, 2004. This supplemental appeal brief follows reopening of prosecution by the Examiner. The claims in the appendix reflect the amendment of August 9, 2004.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

Discussions about elements and recitations of the following claims can be found at least at the cited exemplary locations in the specifications and drawings.

According to claim 23, a container comprising:

object presence detection equipment internal to said container, said equipment comprising at least one transmitter of transmitted signal energy and a plurality of fixed receivers of received signal energy (line 20 of page 8-line 3 of page 9; 201, 202-204 of Figure 2);

a set of objects for object presence detection internal to said container, such that an object of said set of objects is operable to modify said transmitted signal energy of a selected

frequency to generate said received signal energy of said selected frequency (lines 3-9 of page 10), wherein said set of objects is disposed in a configuration selected from a linear array, a two-dimensional array, and a three-dimensional array (lines 1-14 of page 8); and

a container wall substantially surrounding said object presence detection equipment and said set of objects, said wall operable to shield said equipment and said set of objects from extraneous external signals (lines 15-19 of page 8; 200 of Figure 2).

According to claim 31, the container of claim 29 wherein objects in a subset of said objects within said set of objects are interchangeable and resonate at the same frequency (lines 3-10 of page 7).

According to claim 33, a method for identifying a subset of objects within a set of objects in a container, said method comprising:

transmitting a signal of a selected frequency within said container (lines 20-21 of page 8);

modifying said transmitted signal at said selected frequency by at least one object of said set of objects, wherein said at least one object is a member of said subset (lines 1-11 of page 5), and wherein said subset comprises a plurality of said objects responsive to said selected frequency (lines 3-9 of page 10);

receiving said modified signal within said container (lines 20-22 of page 8);

analyzing and processing said received signal (lines 6-9 of page 11); and

shielding the interior of said container from extraneous external signals (lines 15-19 of page 8; 200 of Figure 2).

According to claim 42, a tape storage container comprising:

object presence detection equipment internal to said container, said equipment comprising at least one transmitter of transmitted signal energy and at least one receiver of received signal energy (line 20 of p. 8-line 3 of page 9; 201, 202-204 of Figure 2);

a plurality of tape cartridges for object presence detection internal to said container, wherein said plurality of tape cartridges is disposed in a configuration selected from a linear array, a two-dimensional array, and a three-dimensional array (lines 1-14 of page 8), such that a tape cartridge of said plurality of tape cartridges is operable to modify said transmitted

signal energy of a selected frequency to generate said received signal energy of said selected frequency (lines 3-9 of page 10); and

a metallic outer body substantially surrounding said object presence detection equipment and said plurality of tape cartridges, said metallic outer body operable to shield said equipment and said tape cartridges from extraneous external signals (lines 15-19 of page 8; 200 of Figure 2).

According to claim 49, the container of claim 47 wherein tape cartridges in a subset of said tape cartridges within said plurality of tape cartridges are interchangeable with one another and resonate at the same frequency (lines 3-10 of page 7).

According to claim 51, the method of claim 33 wherein said analysis determines the number of members of said subset present within said container (lines 20-26 of page 7).

## **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

1. Claims 23-29 and 32 are rejected under 35 U.S.C. §103(a) as being unpatentable over US 5,963,134 (hereinafter, *Bowers*) in view of US 6,600,418 (hereinafter, *Francis*) in further view of US 6,204,764 (hereinafter, *Maloney*).
2. Claim 30 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis* in view of *Maloney* in further view of US 6,104,311 (hereinafter, *Lastinger*).
3. Claim 31 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis* in view of *Maloney* in further view of US 5,581,257 (hereinafter, *Greene*).
4. Claims 33-38, 42, 44-47, 50, and 51 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis*.
5. Claim 48 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis* in further view of *Lastinger*.



6. Claim 49 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis* in further view of *Greene*.
7. Claim 52 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis* in view of *Maloney* in further view of US 5,995,019 (hereinafter, *Chieu*).

## VII. ARGUMENT

The claims do not stand or fall together. Instead, Applicant presents separate arguments for various independent and dependent claims. Each of these arguments is separately argued below and presented with separate headings and sub-heading as required by 37 C.F.R. § 41.37(c)(1)(vii).

### A. First Ground of Rejection

Claims 23-29 and 32 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis* in further view of *Maloney*.

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the applied reference. *See In re Vaeck* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. *In re Merck and Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Finally, the applied reference must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Without conceding the second criterion, Appellant respectfully asserts that the rejection does not satisfy the first and third criteria, as discussed further below.

#### 1. Lack of motivation to combine

The rejection is improper because it does not provide motivation to add *Maloney* to the combination of *Bowers* and *Francis*. It is well settled that the fact that references can be combined or modified is not sufficient to establish a *prima facie* case of obviousness,

M.P.E.P. § 2143.01. On page 4, the Office Action of June 30, 2005 (hereinafter, “Office Action”) states:

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals and to have a plurality of receivers in *Bowers et al.* as evidenced by *Francis et al.* in view of *Maloney* because *Bowers et al.* suggests interrogating objects in a container and *Francis et al.* teaches the use of electromagnetic shielding to prevent reading of the [sic] by extraneous source and further limit the interference from other electromagnetic sources. *Maloney* teaches providing a plurality of receivers within the container for detecting the removal or placement of article from the container.

In the last sentence, the quoted paragraph merely alleges that *Maloney* teaches a certain technical feature without explaining why one of skill in the art would be motivated to modify the combination of *Bowers* and *Francis* with *Maloney*. In other words, the Office Action fails to suggest the desirability for the recited combination. Such language is merely a statement that the references can be modified, and does not state any desirability for making the modification. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combinations, M.P.E.P. § 2143.01 citing *In re Mills*, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Thus, the failure to provide motivation suggesting desirability of the modifications is improper. Accordingly, Appellant respectfully submits that the 35 U.S.C. § 103(a) rejection of claims 23-29 and 32 fails.

2. Failure to teach or suggest all features, Claims 23-29 and 32

Claim 23 recites a “container comprising . . . object presence detection equipment internal to said container . . . [and] wherein said set of objects is disposed in a configuration selected from a linear array, a two-dimensional array, and a three-dimensional array.”

Appellant respectfully asserts that *Bowers* in view of *Francis* fails to teach such a container. FIGURE 9 of *Bowers* does not teach this container, as contended by the Examiner in the Final Action rejection of claim 25. Rather, as described at column 15 lines 43–58, FIGURE 9 of *Bowers* illustrates a shelf of articles scanned by a portable scanner that is external to the depicted shelf. Accordingly, *Bowers* does not teach or suggest the above-quoted feature.

Neither *Francis* nor *Maloney* cure the deficiency. Thus, the cited combination does not teach or suggest this feature.

Further, claim 23 recites, “an object of said set of objects is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency.” The cited combination does not teach or suggest this feature. *Bowers* teaches that its RFID tags change their resonant frequency before returning a signal so that the RFID tags return a signal with a frequency different from that received. *See Bowers* at Col. 8, lines 54-63. Accordingly, *Bowers* does not teach or suggest “an object of said set of objects is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency,” as claimed. The Office Action does not rely on the other references to teach the feature. Therefore, the combination does not teach or suggest the above-quoted feature of claim 23.

In addition, claim 23 recites “object presence detection equipment internal to said container, said equipment comprising at least one transmitter of transmitted signal energy and a plurality of fixed receivers.” The cited combination does not teach or suggest this feature. To show this feature, the Office Action relies on *Maloney*, citing item 63 of figure 5 and the passage at column 8, lines 5-20. However, the cited passage merely states that each RF sensor (63) is associated with a receptacle, but it does not teach how many RF sensors may be associated with a receptacle. The passage is not enough to teach or suggest “a plurality of fixed receivers,” as claimed. These deficiencies of *Maloney* are not cured by combining *Maloney* with *Bowers* and *Francis*. Thus, the cited combination does not teach or suggest the above-quoted features. Therefore, Appellant respectfully asks that the rejection of claim 23 be withdrawn.

Dependent claims 24-29 and 32 each depend either directly or indirectly from independent claim 23 and, thus, inherit all of the limitations of independent claim 23. Thus, the cited combination does not teach or suggest all claim limitations of claims 24-29 and 32. It is respectfully submitted that dependent claims 24-29 and 32 are allowable at least because of their dependence from claim 23 for the reasons discussed above. Accordingly, Appellant respectfully requests the reversal of the rejection of claims 23-29 and 32.

**B. Second Ground of Rejection**

On pages 5-6 of the Office Action, claim 30 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis* in view of *Maloney* in further view of *Lastinger*. Appellant traverses the rejection.

**1. Lack of motivation to Combine**

As shown above with regard to claims 23-29 and 32, the Office Action does not provide proper motivation to combine *Maloney* with *Bowers* and *Francis*. The rejection of claim 30, which adds *Lastinger* to the combination, does not cure the deficiency because it also does not explain why one of ordinary skill in the art would be motivated to combine *Maloney* with the other references. Accordingly, the rejection of claim 30 must fail.

**2. Failure to teach or suggest all claim limitations**

As shown above, the combination of *Bowers*, *Francis*, and *Maloney* does not teach or suggest all features of independent claim 23. Dependent claim 30 depends from independent claim 23 and, thus, inherits all of the limitations of independent claim 23. *Lastinger* does not cure the deficiency. Thus, the cited combination does not teach or suggest all claim limitations of claim 30. It is respectfully submitted that dependent claim 30 is allowable at least because of its dependence from claim 23 for the reasons discussed above.

**C. Third Ground of Rejection**

On page 6 of the Office Action, claim 31 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis* in view of *Maloney* in further view of *Greene*. Appellant traverses the rejection. It is believed that the reference to claim 49 in this rejection is in error, as claim 49 is addressed elsewhere in the Office Action.

**1. Lack of motivation to combine**

As shown above with regard to claims 23-29 and 32, the Office Action does not provide proper motivation to combine *Maloney* with *Bowers* and *Francis*. The rejection of claim 31, which adds *Greene* to the combination, does not cure the deficiency because it also

does not explain why one of ordinary skill in the art would be motivated to combine *Maloney* with the other references. Accordingly, the rejection of claim 31 must fail.

2. Failure to teach or suggest all claim limitations

Claim 31 recites, in part, “wherein objects in a subset of said objects within said set of objects are interchangeable and resonate at the same frequency.” The rejection fails to show that the cited combination teaches or suggests this feature of claim 31. The Office Action cites *Greene* at column 6, lines 27-29 as teaching “radio frequency tags having the same frequency in order to provide the same information.” Office Action at 6. However, the rejection does not allege that *Greene* teaches or suggests “said objects within said set of objects are interchangeable,” as recited by claim 31, nor does *Greene* teach or suggest objects are interchangeable. The Office Action does not rely on any other reference to teach or suggest this feature. Therefore, the cited combination does not teach or suggest, “wherein objects in a subset of said objects within said set of objects are interchangeable and resonate at the same frequency,” as recited by claim 31. Accordingly, it is respectfully requested that the rejection of claim 31 be reversed.

**D. Fourth Ground of Rejection**

On pages 6-9 of the Office Action, claims 33-38, 42, 44-47, 50, and 51 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis*. Appellant traverses the rejection.

1. Claims 33-38

Claim 33 is rejected as obvious in light of *Bowers* in view of *Francis*. Claim 33 recites identifying a subset of objects within a container by “transmitting a selected frequency signal within said container . . . modifying said transmitted signal at said selected frequency by at least one object of said set of objects, wherein said at least one object is a member of said subset, and wherein said subset comprises a plurality of said objects responsive to said selective frequency.” Appellant respectfully asserts that *Bowers* does not teach or suggest identifying subsets in this manner at least because *Bowers* does not teach identifying subsets, nor does it teach a subset comprises a plurality of objects responsive to a selected frequency.

For instance, the cited passages at columns 8 and 12 do not teach or suggest a “subset comprises a plurality of objects responsive to said selected frequency” because the passages do not teach more than one object responsive to any given frequency. See *Bowers* at Col. 8, lines 36-43 and Col. 12, lines 50-65. Further, *Francis* does not cure the deficiency of *Bowers* by teaching or suggesting identifying subsets as recited by claim 33.

Furthermore, the Office Action admits that *Bowers* does not teach or suggest “shielding the interior of said container from extraneous external signals” as recited by claim 33. Office Action at 7. *Francis* is cited as teaching “the use of electromagnetic shielding to prevent reading of the [sic] by extraneous source” at col. 9, lines 49-65. *Id.* The “RF shield” of *Francis* is “positioned between the [RFID] tags” so that motion and direction can be determined for a load. See *Francis* at Col. 9, lines 49-65. However, *Francis* does not appear to teach or suggest the recited limitation of claim 33 of “shielding the interior of said container from extraneous external signals.” Accordingly, the cited combination of *Bowers* and *Francis* does not teach or suggests all limitations recited by claim 33. Appellant respectfully asks that the rejection of claim 33 be withdrawn.

Dependent claims 34-38 each depend either directly or indirectly from independent claim 33 and, thus, inherit all of the limitations of independent claim 33. Thus, the cited combination does not teach or suggest all claim limitations of claims 34-38. It is respectfully submitted that dependent claims 34-38 are allowable at least because of their dependence from claim 33 for the reasons discussed above. Accordingly, Appellant respectfully requests the reversal of the rejection of claims 33-38.

## 2. Claims 42, 44-47, and 50

Claim 42 is rejected as obvious in light of *Bowers* in view of *Francis*. Claim 42 recites “a tape storage container comprising . . . object presence detection equipment internal to said container . . . [and] a plurality of tape cartridges . . . wherein said plurality of tape cartridges is disposed in a configuration selected from a linear array, a two-dimensional array, and a three-dimensional array.” In figure 9, *Bowers* teaches placing transmitters outside of a container housing articles. Accordingly, *Bowers* does not teach or suggest at least the above-recited limitation of claim 42 of “object presence detection equipment internal

to said container.” Nor does *Francis* teach or suggest at least this limitation as recited by claim 42, and thus does not cure the deficiency of *Bowers* with respect to claim 42.

Further, claim 42 recites, “a tape cartridge ... is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency.” The cited combination does not teach or suggest this feature. *Bowers* teaches that its RFID tags change their resonant frequency before returning a signal so that the RFID tags return a signal with a frequency different from that received. *Bowers* at Col. 8, lines 54-63. Accordingly, *Bowers* does not teach or suggest “a tape cartridge ... is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency,” as claimed. The Office Action does not rely on the other references to teach the feature. Therefore, the combination does not teach or suggest the above-quoted feature of claim 42.

Additionally, claim 42 also recites a “metallic outer body operable to shield said equipment and said tape cartridges from extraneous external signals.” The Office Action admits that *Bowers* is “silent on teaching metallic outer body operable to shield said equipment and said tape cartridges from extraneous external signals.” Office Action at 8. The Office Action asserts that *Francis* “teaches the use of electromagnetic shielding to prevent reading of the [sic] by extraneous source.” *Id.* The “RF shield” of *Francis* is “positioned between the [RFID] tags” so that motion and direction can be determined for a load. *See Francis* at Col. 9, lines 49-65. It should be noted that *Francis* teaches against such a feature in at least one passage—“the entire assembly may be enclosed in a RF transparent enclosure.” *See Francis* at Col. 9, lines 64-65. *Francis* does not appear to teach or suggest the recited limitation of claim 42 of a “metallic outer body operable to shield said equipment and said tape cartridges from extraneous external signals.” Accordingly, the cited combination does not teach or suggest all features of claim 42. Therefore, Appellant respectfully requests that the rejection of claim 42 be reversed.

Dependent claims 44-47 and 50 each depend either directly or indirectly from independent claim 42 and, thus, inherit all of the limitations of independent claim 42. Thus, the cited combination does not teach or suggest all claim limitations of claims 44-47 and 50.

It is respectfully submitted that dependent claims 44-47 and 50 are allowable at least because of their dependence from claim 42 for the reasons discussed above. Accordingly, Appellant respectfully requests the reversal of the rejection of claims 42, 44-47, and 50.

### 3. Claim 51

Claim 51 recites, in part, “said analysis determines the number of members of said subset present within said container.” The cited combination does not teach or suggest this feature of claim 51. The Office Action cites *Bowers* at column 14, lines 4-10 and figure 7 as teaching the feature. Office Action at 9. The cited portion teaches a “shelf report,” but it does not teach that the shelf report determines the number of members. See, for instance, figure 7, which teaches fields for “go to locations,” “reshelve articles,” and “titles,” but not a field for number of members. Thus, *Bowers* does not teach or suggest the recited feature of claim 51. The Office Action does not rely on any other reference to teach or suggest the feature. Therefore, the cited combination does not teach or suggest “said analysis determines the number of members of said subset present within said container,” as recited by claim 51. Accordingly, it is respectfully requested that the rejection of claim 51 be reversed.

### E. Fifth Ground of Rejection

On page 9 of the Office Action, claim 48 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis* in further view of *Lastinger*. Appellant traverses the rejection.

As shown above, the combination of *Bowers* and *Francis* does not teach or suggest each and every feature of independent claim 42. Dependent claim 48 depends from independent claim 42 and, thus, inherits all of the limitations of independent claim 42. *Lastinger* does not cure the deficiency. Thus, the cited combination does not teach or suggest all claim limitations of claim 48. It is respectfully submitted that dependent claim 48 is allowable at least because of its dependence from claim 42 for the reasons discussed above.



**F. Sixth Ground of Rejection**

On page 10 of the Office Action, claim 49 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis* in further view of *Greene*. Appellant traverses the rejection.

Claim 49 recites, in part, “tape cartridges in a subset of said tape cartridges within said plurality of tape cartridges are interchangeable with one another and resonate at the same frequency.” The rejection fails to show that the cited combination teaches or suggests this feature of claim 49. The Office Action cites *Greene* at column 6, lines 27-29 as teaching “radio frequency tags having the same frequency in order to provide the same information.” Office Action at 10. However, the rejection does not allege that *Greene* teaches or suggests “tape cartridges in a subset ... are interchangeable with one another,” as recited by claim 49, nor does *Greene* teach or suggest tape cartridges are interchangeable. The Office Action does not rely on any other reference to teach or suggest this feature. Therefore, the cited combination does not teach or suggest, “tape cartridges in a subset of said tape cartridges within said plurality of tape cartridges are interchangeable with one another and resonate at the same frequency,” as recited by claim 49. Accordingly, it is respectfully requested that the rejection of claim 49 be reversed.

**G. Seventh Ground of Rejection**

On pages 10-11 of the Office Action, claim 52 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bowers* in view of *Francis* in view of *Maloney* in further view of *Chieu*. Appellant traverses the rejection.

As shown above, the combination of *Bowers* and *Francis* does not teach or suggest all features of independent claim 33. Dependent claim 52 depends from independent claim 33 and, thus, inherits all of the limitations of independent claim 33. Neither *Chieu* nor *Maloney* cure the deficiency, and, in fact, is believed that the inclusion of *Maloney* in the rejection is in error. Thus, the cited combination does not teach or suggest all claim limitations of claim 52. It is respectfully submitted that dependent claim 52 is allowable at least because of its dependence from claim 33 for the reasons discussed above.

**VIII. CLAIMS**

A copy of the claims involved in the present appeal is attached hereto as Appendix A. The claims in Appendix A include amendments made in the Response mailed August 9, 2004.

**IX. EVIDENCE**

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

**X. RELATED PROCEEDINGS**

No related proceedings are referenced in II. above, or copies of decisions in related proceedings are not provided, hence no Appendix is included.

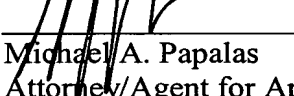
I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail, Label No. EV482711218US in an envelope addressed to: MS Appeal Brief, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313.

Date of Deposit: November 17, 2005

Typed Name: Donna Forbit

Signature: Donna Forbit

Respectfully submitted,

By:   
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**APPENDIX A**

**Claims Involved in the Appeal of Application Serial No. 09/912,211**

1–22. (Canceled)

23. A container comprising:

object presence detection equipment internal to said container, said equipment comprising at least one transmitter of transmitted signal energy and a plurality of fixed receivers of received signal energy;

a set of objects for object presence detection internal to said container, such that an object of said set of objects is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency, wherein said set of objects is disposed in a configuration selected from a linear array, a two-dimensional array, and a three-dimensional array; and

a container wall substantially surrounding said object presence detection equipment and said set of objects, said wall operable to shield said equipment and said set of objects from extraneous external signals.

24. The container of claim 23 wherein said set of objects comprises a tape cartridge.

25. (Canceled)

26. The container of claim 23 wherein said set of objects comprises a plurality of arrays of objects.

27. The container of claim 26 wherein each array of said plurality of arrays of objects has associated transmitters, receivers, analyzing circuitry, and data processing equipment.

28. The container of claim 23 wherein said transmitted and said received signal energy are selected from electromagnetic radio-frequency energy, sonic energy, and ultrasonic energy.

29. The container of claim 28 wherein said object is operable to modify said transmitted signal energy of a selected frequency by resonating at said frequency.

30. The container of claim 29 wherein said resonating is enhanced by variable resonant material characteristics selected from length, width, thickness, material composition, electrical resistance, electrical excitation, application of tensile force, application of compressive force, temperature, electrical induction, and electrical capacitance.

31. The container of claim 29 wherein objects in a subset of said objects within said set of objects are interchangeable and resonate at the same frequency.

32. The container of claim 23 wherein said at least one transmitter and said at least one receiver are combined into at least one transceiver.

33. A method for identifying a subset of objects within a set of objects in a container, said method comprising:

transmitting a signal of a selected frequency within said container;

modifying said transmitted signal at said selected frequency by at least one object of said set of objects, wherein said at least one object is a member of said subset, and wherein said subset comprises a plurality of said objects responsive to said selected frequency;

receiving said modified signal within said container;

analyzing and processing said received signal; and

shielding the interior of said container from extraneous external signals.

34. The method of claim 33 wherein said set of objects comprises a tape cartridge.

35. The method of claim 33 wherein said set of objects is disposed in a configuration selected from a linear array, a two-dimensional array, a three-dimensional array, and a plurality of said arrays.

36. The method of claim 33 wherein said transmitted and said received signals are selected from electromagnetic radio-frequency signals, sonic signals, and ultrasonic signals.

37. The method of claim 36 wherein said modifying is performed by resonating at said selected frequency.

38–41. (Canceled)

42. A tape storage container comprising:

object presence detection equipment internal to said container, said equipment comprising at least one transmitter of transmitted signal energy and at least one receiver of received signal energy;

a plurality of tape cartridges for object presence detection internal to said container, wherein said plurality of tape cartridges is disposed in a configuration selected from a linear array, a two-dimensional array, and a three-dimensional array, such that a tape cartridge of said plurality of tape cartridges is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency; and

a metallic outer body substantially surrounding said object presence detection equipment and said plurality of tape cartridges, said metallic outer body operable to shield said equipment and said tape cartridges from extraneous external signals.

43. (Canceled)

44. The container of claim 42 wherein said plurality of tape cartridges comprises a plurality of arrays of objects.

45. The container of claim 44 wherein each array of said plurality of arrays of tape cartridges has associated transmitters, receivers, analyzing circuitry, and data processing equipment.

46. The container of claim 42 wherein said transmitted and said received signal energy are selected from electromagnetic radio-frequency energy, sonic energy, and ultrasonic energy.

47. The container of claim 46 wherein said object is operable to modify said transmitted signal energy of a selected frequency by resonating at said frequency.

48. The container of claim 47 wherein said resonating is enhanced by variable resonant material characteristics selected from length, width, thickness, material composition,

electrical resistance, electrical excitation, application of tensile force, application of compressive force, temperature, electrical induction, and electrical capacitance.

49. The container of claim 47 wherein tape cartridges in a subset of said tape cartridges within said plurality of tape cartridges are interchangeable with one another and resonate at the same frequency.

50. The container of claim 42 wherein said at least one transmitter and said at least one receiver are combined into at least one transceiver.

51. The method of claim 33 wherein said analysis determines the number of members of said subset present within said container.

52. The method of claim 33 wherein said set of set objects comprises a plurality of subsets, wherein each said subset is responsive to a different said selected frequency.

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**APPENDIX B**

None.

**APPENDIX C**

None.